

Amendments to the Abstract

Please amend lines 1-10 at page 17 with the following amended paragraph:

[0056] ~~The present invention teaches a variety of timing generation and recovery schemes for providing high precision clock synchronization in cascaded communications systems where each point of communication has a unique clock. To accomplish the high precision, one embodiment of the present invention teaches quantizing information related to phase relation between a master clock at the transmitter and a network link clock. This quantized phase information can be transmitted with very little bandwidth, recovered and the receiver and used to recover the timing information with high precision.~~ Systems, apparatuses, and methods for low wander timing generation and/or recovery are disclosed here. In one aspect, embodiments of the present disclosure include a communication system for high speed communications between a first location and a second location. The communication system, may include a transmitter module at the first location associated a first clock. The transmitter module may further include a phase detector module that is operable to generate a one or more data bits to indicate phase offset between the first clock and a second clock, the first clock can be associated with a transmission rate and the second clock can be associated with a network link rate and/or a receiver module at the second location associated with the second clock. The receiver module may be coupled to the transmitter module via a network.

Amendments to the Specification

1. Please amend lines 25-29 at page 6 and 1-2 at page 7 with the following amended paragraph:

In a step 84, the transmitter 104 sends downstream data at a rate specified by the ~~master clock signal RT~~ network link clock signal RN, as well as transmitting the quantized phase signal. In certain embodiments, the quantized phase signal is transmitted via an overhead channel and takes minimal bandwidth relative to the data. In a step 86, a receiver 106 receives the downstream data together with the phase signal, as well as the network link clock signal RN. In a